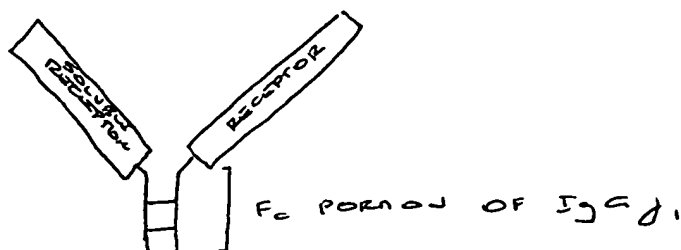


# CONSTRUCTION PLAN IgG $\gamma_1$ VECTOR

PURPOSE: WILL BUILD A VECTOR FOR EXPRESSION OF SOLUBLE RECEPTORS FUSED TO IgG $\gamma_1$  HEAVY CHAIN. THIS EXPRESSION SYSTEM ALLOWS AN EASY WAY TO PURIFY SOLUBLE RECEPTOR OVER A PROTEIN A COLUMN. THEN PROVIDES A HANDLE FOR USING IN COILING AFTER LIGAND.



- IgG $\gamma_1$  PORTION OF FUSION INCLUDES HINGE REGIONS CH<sub>2</sub>; CH<sub>3</sub>
- FUSION IS CONSTRUCTED AS A MONOMER BUT DIMERIZES VIA IT'S TWO CYSTEINE'S IN THE HINGE REGION

PLAN

5':

GLU - PRO - LYS - SER - CYS - ASP - LYS - THR - HIS - THR ...  
 ↳ 1st A.A. OF HINGE REGION

↳ LYS CHANGED TO ARG. TO ALLOW CONSTRUCTION OF Bgl II SITE (FANSHAW, ET AL. J. OF IMMUNOL. 149: 655-660)

↳ CYS CHANGED TO SER JUN 15, 1992. TO ELIMINATE UNBOUND CYS IN HINGE REGION. THIS CYS NORMALLY BIND LIGHT CHAIN, BUT LIGHT CHAIN IS NOT NECESSARY FOR CREATION OF A FUNCTIONAL FUSION (BENNETT, ET AL J. OF BIOL. CHEM. 266 (34) 23060-23067 DEC 5, 1991)

3':

WILL BE IDENTICAL TO NATURE